

Resort Corridor Fixed Guideway

Las Vegas, Nevada
(November 2002)

Description

The Regional Transportation Commission (RTC) of Southern Nevada is the lead local agency proposing to extend a monorail system 2.3 miles north from the vicinity of the Sahara Resort along Las Vegas Boulevard, to downtown Las Vegas. This would be an extension of a 3.6-mile monorail system that is under construction by a local public-private partnership. The proposed project will serve the northern portion of the Las Vegas “Strip,” and the old Las Vegas central business district, which has over 85,000 employees and 30,000 households, and is the center of regional employment and tourism activity. There are very congested conditions along Las Vegas Boulevard (the strip) and the RTC currently operates a high level of bus service along the congested corridor. The proposed monorail system will offer a faster, more convenient transit service for resort corridor employees and visitors than using existing buses or private taxicabs and shuttle buses, which are constrained by congested conditions on Las Vegas Boulevard.

Summary Description	
Proposed Project:	Automated Fixed Guideway 2.28 Miles, 4 Stations
Total Capital Cost (\$YOE):	\$324.8 Million
Section 5309 New Starts Share (\$YOE):	\$159.7 (49%)
Annual Operating Cost (2007 \$YOE):	\$19.0 Million
Ridership Forecast (2020):	38,800 Average Weekday Boardings 22,590 Daily New Riders
Opening Year Ridership Forecast (2006):	25,000 Average Weekday Boardings
FY 2004 Finance Rating:	Medium
FY 2004 Project Justification Rating:	Medium-High
FY 2004 Overall Project Rating:	Recommended

The overall project rating of *Recommended* is based on the high employment density in the corridor, strong cost-effectiveness, and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Annual Report on New Starts and reflects conditions as of November 2002*. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules and refined financing plans.**

Status

RTC initiated a Major Investment Study for the central employment area of the Las Vegas Valley in July 1994. In January 1997, the RTC and the City of Las Vegas formally adopted the Resort Corridor Transportation Master Plan, which included a 15.6-mile fixed guideway transit

system. FTA approved entrance to Preliminary Engineering on a 4.7-mile MOS in July 1998. A Draft Environmental Impact Statement on a 3.1-mile portion was completed in early 2002, and as a response to public comments, the project length was reduced from 3.1 miles to 2.28 miles. The 0.9-mile segment deleted from the MOS is a spur that will be re-aligned and constructed at a later date. The RTC plans to complete the NEPA process and receive a Record of Decision in early 2003 and begin construction in 2004.

RTC is coordinating project planning activities with the Las Vegas Monorail Corporation, a public/private partnership that is constructing a monorail system of 3.6 miles that will extend as far south as the MGM Hilton near Tropicana Avenue. The Las Vegas Monorail Corporation plans to complete construction in early 2004.

The RTC is a participant in FTA's Bus Rapid Transit (BRT) program, and plans to link a BRT project called "MAX" with the monorail at a downtown intermodal transfer station.

TEA-21 Section 3030(a)(35) authorizes the Las Vegas Corridor for Final Design and construction. Through FY 2002, Congress has appropriated \$13.85 million in Section 5309 New Start funds for this project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts report and when it is ready to advance into Final Design.

Project Justification

Rating: Medium-High

The *Medium-High* project justification rating reflects the project's very good cost effectiveness and the existing activity centers along the proposed alignment. Based on 1990 Census data, there are an estimated 1,381 low-income households within a ½-mile radius of the proposed 4 stations of the MOS, which is 23 percent of the households in the corridor. There are 40,132 employees within ½-mile of the station areas, which is 35 percent of the employment in the corridor. The Las Vegas Metropolitan Area is an "attainment area" for ozone and nitrogen oxides; however, it is designated as a "serious non-attainment area" for both carbon monoxide and particulate matter. The incremental cost per incremental trip is \$1.99.

Project Justification Quantitative Criteria		
Mobility Improvements Rating: Medium		
	<u>New Start vs. Baseline</u>	
Average Employment Per Station	16,500	
Average Low Income Households Per Station	415	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	0.8	
Environmental Benefits Rating: High		
<u>Criteria Pollutants Reduced</u> (tons)	<u>New Start vs. Baseline</u>	
Carbon Monoxide (CO)	158	
Nitrogen Oxide (NO _x)	35	
Hydrocarbons	49	
Particulate Matter (PM ₁₀)	44	
Carbon Dioxide (CO ₂)	12,456	
<u>Annual Energy Savings</u> (million)		
BTU	107,824	
Cost Effectiveness Rating: High		
	<u>New Start vs. Baseline</u>	
Cost per Transportation System User Benefit (current year dollars/hour)	\$2.83	
Operating Efficiencies Rating: Medium		
	<u>Baseline</u>	<u>New Start</u>
System Operating Cost per Passenger Mile (current year dollars)	\$0.45	\$0.36

[] indicate an increase in emissions.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: Medium

The *Medium* rating reflects the lack of formal transit supportive land use and parking policies in the Las Vegas region, but acknowledges that market conditions have created a highly dense, job-rich environment in the corridor.

Existing Conditions: The Resort Corridor functions as the region's primary employment center, accommodating nearly 50 percent (235,000) of regional jobs. There are an estimated 40,730 jobs within ½-mile of proposed station areas of the project. Existing zoning supports high-intensity hotel, resort, retail, and some residential uses. Areas adjacent to the major resort activities are pedestrian and transit-friendly, but the pedestrian environment declines outside of these areas. Parking throughout is free and without limitation. While residential uses do not predominate in the corridor, there are an estimated 5,530 residents within ½-mile of proposed

station sites. Due to the predominance of resort-type uses at the southern end of the corridor, visitors also represent a major travel market in the corridor.

Future Plans, Policies and Performance: The Las Vegas region is one of the fastest growing areas in the U.S. The urbanized area is surrounded by public land, and its conversion for development must be negotiated; as a result, new development is occurring at some of the highest densities in the U.S. (including a considerable amount of multi-family development in the range of 18 to 24 units per acre). Explicit transit-supportive land use planning has not occurred, however. Market forces are expected to contribute to the continued increase of major trip generators in the Resort Corridor. The MOS is proposed in an area targeted for redevelopment north of the Resort Corridor. Rapid growth in the number of jobs in the Resort Corridor is forecast, with an increase of 40,000 jobs by 2020, an increase of 59 percent, compared to forecast growth of 142 percent regionwide. Strong regional growth conditions are demonstrated by the number of major projects currently planned or under construction, both within the Resort Corridor and elsewhere in the region. In September 1999, the RTC and the City of Las Vegas entered into an interlocal agreement to conduct station area land use planning activities along the corridor. In addition, the city has taken steps to implement its downtown redevelopment plan, including undertaking streetscape and design improvements.

Local Financial Commitment

Rating: Medium

The rating of *Medium* for local financial commitment is determined by the *Medium* rating for the Capital Operating Plan and the *Medium* rating of the Operating Financial Plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%

Rating: Medium

The RTC plans to use Section 5309 New Starts funds, FHWA flexible funds, a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, and State-issued bonds for the non-federal funds.

Locally Proposed Financial Plan		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Percent of Total</u>
Federal:		
Section 5309 New Starts	\$159.7	49.2 %
FHWA STP	\$5.0	1.5 %
FHWA CMAQ	\$3.0	0.9 %
TIFIA Loan	\$105.5	32.5 %
State:		
Bonds	\$51.6	15.9 %
Total:	\$324.8	100.0 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

Stability and Reliability of Capital Financing Plan

Rating: Medium

The *Medium* rating reflects the moderate level of local capital funding committed to the proposed project and the level of Federal funds from the TIFIA program and other Federal sources which are not committed.

Agency Capital Financial Condition: Based on current financial statements and the historical performance of RTC's locally dedicated sales tax, the agency is in good capital financial condition. The RTC's overall bus fleet average age is 6.5 years. Sales tax revenues serve as a primary source of capital funding, and there are no sunset clauses affecting the collection and allocation of those revenues. RTC maintains a policy whereby net pledged revenues must equal 150 percent of the annual debt service.

Capital Cost Estimates and Contingencies: Cost estimates assume a conservative 5 percent rate of cost inflation and reasonable contingencies. The project's cash flow demonstrates an annual average surplus equal to 2.2 percent of systemwide operating and capital revenues, which would be available to absorb unexpected cost overruns or unanticipated funding shortfalls. The cost estimates for the 2.28-mile project are based upon the cost to construct the private sector 3.6-mile monorail.

Existing and Committed Funding: Approximately five percent of the proposed non-New Starts funds are committed, which includes \$8 million in CMAQ/STP funding. The largest non-Section 5309 funding source is from the TIFIA Loan program. Project sponsors plan to borrow \$105.5 million under the TIFIA program, if the application is approved by USDOT for fiscal year 2003. The RTC plans to contract with a Master System Developer to design, build, operate and maintain the proposed monorail service. To provide funding for the Phase II public/private relationship, the RTC will solicit the Nevada Department of Business to issue tax-exempt bonds. The bonds would be reimbursed from farebox recovery surpluses. However, if surpluses do not materialize, RTC's local dedicated ¼-cent sales tax is sufficient to cover bond payments, although the RTC's bus expansion plans would be put at risk (existing bus operations would not be negatively impacted).

New and Proposed Sources: A planned \$105.5 million TIFIA loan represents the capital plan's largest non-Section 5309 funding source. A highly competitive application process governs the allocation of TIFIA funding. The financial plan reported that the strength of public/private relationships along the Resort Corridor will strengthen the region's TIFIA application. The U.S. Department of Transportation has not received an application for the TIFIA loan.

Stability and Reliability of Operating Finance Plan

Rating: Medium

The *Medium* rating reflects the RTC's strong operating revenues, but recognizes optimistic farebox recovery forecasts to provide operating revenues.

Agency Operating Financial Condition: In recent years, RTC's transit system has experienced declining operating surpluses but significant increases in ridership and productivity (in terms of riders per vehicle mile). In FY 2000, the RTC had a farebox recovery ratio of 50 percent. The overall operating condition of the agency is considered sound.

Operating Cost Estimates and Contingencies: The RTC has projected that the operating cost of the proposed fixed guideway will increase from \$13 million in 2007, the first year of revenue service, to \$20 million in 2022. The RTC will fund a 20 percent cash reserve in 2004 that is equal to 2.5 months of operating and maintenance expenses. The cash reserve is dependent upon the ¼-cent sales tax increase.

Existing and Committed Funding: Over 90 percent of the RTC's operating and maintenance funding is existing and committed. The RTC's dedicated sales and use tax funds nearly 60 percent of operations. In November of 2002, voters approved a ¼-cent tax increase that will help fund transit operations. Currently, sales tax revenues generate \$58 million annually, and are forecast to generate over \$90 million. The financial plan states that farebox revenues will fund 100 percent of the fixed guideway operating expenses through 2020. Additionally, the plan assumes the project will produce a 200 percent fare recovery ratio by 2020 and surpluses will be used to cover both operating expenses and the projected debt service on the \$260 million in State and TIFIA bonds.

New and Proposed Funding Sources: The RTC has recently received voter approval for a ¼-cent sales tax increase to provide additional operating and maintenance funding.

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